What is claimed is:

1. An on-board fuel cell powered electric vehicle comprising:

a fuel cell for generating electricity by being supplied with a fuel and an oxidant;

a temperature regulating unit for regulating the temperature of the fuel cell by sending out a cooling fluid through a pipe unit;

a fuel supply regulating unit for regulating a supply condition in which the fuel is supplied to the fuel cell;

a humidification unit for supplying water to the fuel cell by humidifying at least one of the fuel and the oxidant using a humidifier;

a fuel cell output setting unit for setting whether or not electric power can be taken out of the fuel cell; and

a exhaust unit for exhaust a gas discharged from the fuel cell from a rear of the vehicle, wherein

the temperature regulating unit and the fuel cell output setting unit are arranged to align in a transverse direction of the vehicle so as to constitute a first group, whereas the fuel supply regulating unit and the humidification unit are arranged to align in the transverse direction of the vehicle so as to constitute a second group, whereby the first group, the fuel cell, the second group and the exhaust unit are arranged to align in that order from the front to rear of the vehicle.

2. An on-board fuel cell powered electric vehicle as set forth in Claim 1, wherein a radiator for cooling the cooling fluid is disposed ahead of the first group in a longitudinal direction of the vehicle, and wherein a fuel storage unit for storing the fuel is disposed rearward of the second group in the longitudinal direction of the vehicle.

3. An on-board fuel cell powered electric vehicle as set forth in Claim 1, wherein the fuel cell is disposed substantially at a central position in the longitudinal direction of the vehicle.

4. An on-board fuel cell powered electric vehicle as set forth in Claim 3, wherein the first group, the fuel cell, the second group, and the exhaust unit are accommodated in a fuel cell system box disposed under a floor of the vehicle.

5. An on-board fuel cell powered electric vehicle comprising:

a fuel cell for generating electricity by being supplied with a fuel and an oxidant;

a temperature regulating unit for regulating the temperature of the fuel cell by sending out a cooling fluid through a pipe unit;

a fuel supply regulating unit for regulating a supply condition in which the fuel is supplied to the fuel cell;

a radiator for cooling the cooling fluid; and

a fuel storage unit for storing the fuel, wherein

the radiator, the temperature regulating unit and the fuel supply regulating unit are arranged to align in that order from the front to rear of the vehicle, with the fuel storage unit being disposed rearward of the fuel supply regulating unit in a longitudinal direction of the vehicle, and wherein

the temperature regulating unit, the fuel cell and the fuel supply regulating unit are accommodated in a fuel cell system box disposed on an underside of a floor of the vehicle.

6. An on-board fuel cell powered electric vehicle as set forth in Claim 5, further comprising a cooling fluid piping through which a cooling fluid flows which has implemented a heat exchange by passing through the temperature regulating unit, wherein a fuel cell inlet of the cooling fluid piping through which the cooling fluid is sent in toward the fuel cell and a fuel cell outlet of the cooling fluid piping through which the cooling fluid is sent out from the fuel cell are disposed at longitudinally rear positions of the vehicle.

7. An on-board fuel cell powered electric vehicle as set forth in Claim 6, wherein the cooling fluid piping is disposed

relative to the fuel supply regulating unit in such a manner as to enable a heat exchange therebetween.

8. An on-board fuel cell powered electric vehicle as set forth in Claim 6, further comprising a humidification unit for supplying the fuel cell with water by humidifying at least one of the fuel and the oxidant using a humidifier, the humidification unit being provided in the fuel cell system box, wherein the fuel supply regulating unit and the humidification unit are arranged to align in the transverse direction of the vehicle, and wherein the cooling fluid piping is disposed relative to the humidification unit in such a manner as to enable a heat exchange therebetween.

9. An on-board fuel cell powered electric vehicle as set forth in Claim 5, further comprising a fuel piping through which a fuel flows which has passed through the fuel supply regulating unit, wherein

a fuel cell inlet of the fuel piping through which the fuel is introduced into the fuel cell and a fuel cell outlet of the fuel piping through which the fuel is discharged from the fuel cell are disposed at longitudinally rear positions of the vehicle.